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(FILE 'HOME' ENTERED AT 14:11:25 ON 09 JUN 2005)

FILE 'REGISTRY' ENTERED AT 14:11:34 ON 09 JUN 2005

L1 1 S 97-72-3/RN

FILE 'CPLUS' ENTERED AT 14:12:00 ON 09 JUN 2005

L2 864 S L1

L3 204 S L2 AND "ACETIC ANHYDRIDE"

L4 19 S L3 AND "ISOBUTYRIC ACID"

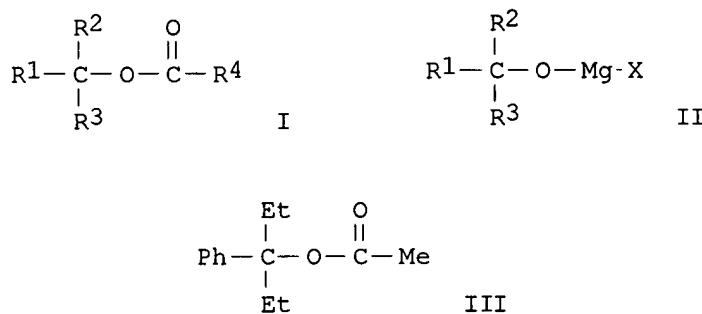
=>

=> d bib abs 1-19

L4 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2005:84839 CAPLUS  
DN 142:113736  
TI Preparation of novel esters of tertiary alcohols  
IN Beldowicz, Maria; Kakol, Barbara; Kulig-Adamiak, Anna; Dornowski, Tadeusz;  
Obukowicz, Bozenna; Kaminski, Jaroslaw; Lewicka, Lidia; Kazimierczak,  
Jerzy  
PA Instytut Chemii Przemyslowej im. Prof. Ignacego Moscickiego, Pol.  
SO Pol., 7 pp.  
CODEN: POXXA7  
DT Patent  
LA Polish  
FAN.CNT 1

| PATENT NO.          | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------------|------|----------|-----------------|----------|
| PI PL 183367        | B1   | 20020628 | PL 1996-314863  | 19960619 |
| PRAI PL 1996-314863 |      | 19960619 |                 |          |

GI



AB The title compds. I [R1-R3 = alkyl, Ph, alkylphenyl; R4 = alkyl; with provisos], potentially useful as flavorants in cosmetic and other industries, were prepared in one-pot synthesis by reacting freshly prepared Grignard reagent R1MgX [X = halo] with ketone R2C(O)R3 followed by reaction of the intermediate II with carboxylic acid derivative R4C(O)Y [Y = halo, OC(O)R; R = alkyl]. Thus, reacting Mg with PhBr in THF followed by addition of di-Et ketone and subsequently Ac2O afforded 90% III. The prepared compds. I demonstrated characteristic flavors which were evaluated on 1 through 8 point flavor scale.

L4 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:875971 CAPLUS  
DN 141:351760  
TI Dehydration process for making isobutyric anhydride from **isobutyric acid and acetic anhydride**  
IN Paul, Jean-Michel; Busca, Patrick  
PA Atofina, Fr.  
SO Eur. Pat. Appl., 6 pp.  
CODEN: EPXXDW  
DT Patent  
LA French  
FAN.CNT 1

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| PI EP 1468980 | A1   | 20041020 | EP 2004-290802  | 20040325 |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR  
 FR 2853900 A1 20041022 FR 2003-4785 20030416  
 US 2005014974 A1 20050120 US 2004-824618 20040415  
 JP 2004315536 A2 20041111 JP 2004-121366 20040416

PRAI FR 2003-4785 A 20030416

AB A dehydration process is presented for making isobutyric anhydride from isobutyric acid and acetic anhydride with distillation of the acetic acid byproduct.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2004:673197 CAPLUS  
 DN 141:182324  
 TI Substituted clonidine derivatives. I. 3,5-Dichloro-4-(imidazolidin-2-ylideneamino)benzonitrile and 3,5-dichloro-4-(1,3-diisobutyrylimidazolidin-2-ylideneamino)benzonitrile  
 AU Elssfah, E. M.; Chinnakali, K.; Fun, H. K.; Mathison, I. W.; Gan, E. K.; Zubaid, M.; Sam, T. W.; Khoo, K. S.  
 CS X-ray Crystallography Unit, School of Physics, Universiti Sains Malaysia, Penang, 11800 USM, Malay.  
 SO Acta Crystallographica, Section C: Crystal Structure Communications (1999), C55(7), iii, IUC9900066/1-2  
 CODEN: ACSCEE; ISSN: 0108-2701  
 URL: <http://journals.iucr.org/c/issues/1999/07/00/issconts.html>  
 PB Munksgaard International Publishers Ltd.  
 DT Journal  
 LA English  
 AB In the title compds., C<sub>10</sub>H<sub>8</sub>C<sub>12</sub>N<sub>4</sub>, (I), and C<sub>18</sub>H<sub>20</sub>C<sub>12</sub>N<sub>4</sub>O<sub>2</sub>, (II), the dihedral angle between the imidazolidine and Ph rings are 67.7(1) and 70.34(9)°, resp. In (I), the imidazolidine ring adopts a half-chair conformation, whereas in (II), it is in a flattened envelope conformation. In (I), the glide related mols. are linked by N<sub>2</sub>-H<sub>2</sub>A···N<sub>1</sub>(x, 1/2-y, z1/2) H bonds with an N···N distance of 2.848(4) Å to form an infinite chain along the c axis with the Ph rings stacked at a perpendicular distance of 3.633(5) Å. In (II), a weak C-H···N intramol. H bond exists between C<sub>11</sub> and N<sub>1</sub>, with a C···N distance of 2.902(4) Å. Crystallog. data and atomic coordinates are given.

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2002:657919 CAPLUS  
 DN 137:195593  
 TI Methods for the treatment of neuropathic pain by aryl nitrone compounds  
 IN Waterbury, David; Wood, Paul L.; Khan, M. Amin; Upasani, Ravindra B.  
 PA Centaur Pharmaceuticals, Inc., USA  
 SO PCT Int. Appl., 82 pp.  
 CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

|    | PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---------------|------|----------|-----------------|----------|
| PI | WO 2002065993 | A2   | 20020829 | WO 2002-US758   | 20020108 |
|    | WO 2002065993 | A3   | 20021107 |                 |          |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,

PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
 UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,  
 TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,  
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 US 2002165274 A1 20021107 US 2002-43659 20020108  
 US 6835754 B2 20041228  
 US 2004209958 A1 20041021 US 2004-843298 20040512  
 PRAI US 2001-260469P P 20010108  
 US 2002-43659 A3 20020108

OS MARPAT 137:195593

AB Methods are disclosed for the treatment of neuropathic pain by aryl nitrone compds. Method involves administration of an effective neuropathic pain-treating dose of a pharmaceutical composition (Markush structures are given). Substituted aryl nitrone compds. are useful as therapeutics for neuropathic pain conditions in mammals.

L4 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:169679 CAPLUS

DN 136:233214

TI Fiber-reinforced composite materials with good biodegradability

IN Takeishi, Hiromasa; Shibata, Mitsuhiro; Yosomiya, Tatsunori

PA Chiba Institute of Technology, Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| PATENT NO.          | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------------|------|----------|-----------------|----------|
| PI JP 2002069208    | A2   | 20020308 | JP 2000-258698  | 20000829 |
| PRAI JP 2000-258698 |      | 20000829 |                 |          |

AB The composite materials comprises surface-treated plant cellulose fibers with OH group converted into esters and biodegradable thermoplastic resins. Surface treating Manila hemp fibers with isobutyric anhydride and pyridine, melt kneading 10 parts treated Manila hemp fibers with 90 parts Biopol, and injection molding gave test pieces with flexural strength 26.3 MPa and flexural modulus 1460 MPa.

L4 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:167971 CAPLUS

DN 134:207727

TI Preparation of quinolinones and related bicyclic compounds as androgen and progesterone receptor modulators.

IN Zhi, Lin; Tegley, Christopher; Pio, Barbara; Arjan van Oeveren, Cornelis; Motamedei, Mehrnouch; Martinborough, Esther; West, Sarah; Higuchi, Robert; Hamann, Lawrence; Farmer, Luc

PA Ligand Pharmaceuticals Incorporated, USA

SO PCT Int. Appl., 356 pp.

CODEN: PIXXD2

DT Patent

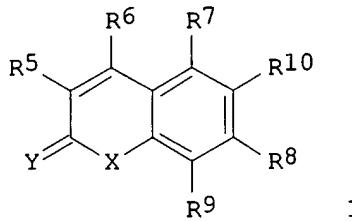
LA English

FAN.CNT 1

| PATENT NO.       | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------|------|----------|-----------------|----------|
| PI WO 2001016108 | A2   | 20010308 | WO 2000-US23585 | 20000825 |
| WO 2001016108    | A3   | 20011220 |                 |          |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
 CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,  
 HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,  
 LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,  
 SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,

YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,  
 CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 US 6566372 B1 20030520 US 2000-649466 20000824  
 CA 2384435 AA 20010308 CA 2000-2384435 20000825  
 BR 2000013653 A 20020514 BR 2000-13653 20000825  
 EP 1212303 A2 20020612 EP 2000-959507 20000825  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL  
 TR 200200508 T2 20020923 TR 2002-200200508 20000825  
 JP 2003508387 T2 20030304 JP 2001-519677 20000825  
 ZA 2002001053 A 20030528 ZA 2002-1053 20020206  
 NO 2002000912 A 20020429 NO 2002-912 20020225  
 BG 106539 A 20021031 BG 2002-106539 20020321  
 US 2003130505 A1 20030710 US 2002-299909 20021118  
 PRAI US 1999-150987P P 19990827  
 US 2000-649466 A3 20000824  
 WO 2000-US23585 W 20000825  
 OS MARPAT 134:207727  
 GI



AB Title compds., e.g. [I; R1, R2 = COR3, CSR3, SO2R3, NO, NR3R4, alkyl,  
 alkenyl, haloalkyl, haloalkenyl, haloalkynyl, heteroalkyl, heteroalkenyl,  
 heteroalkynyl, etc.; R1R2 = atoms to form (substituted) heterocyclyl; R3,  
 R4 = H, (substituted) alkyl, alkenyl, alkynyl, haloalkyl, heteroalkyl,  
 heteroaryl, aryl; R5 = H, F, Cl, Br, iodo, OR3, SR3, NR3R4, alkyl,  
 haloalkyl, heteroalkyl; R6 = F, Cl, Br, iodo, Me, CF3, CHF2, cyano, CF2Cl,  
 CF2OR3, OR3, SOR3, CO2R3, NR3R4, (substituted) alkyl, alkenyl, alkynyl,  
 haloalkyl, heteroalkyl, etc.; R7, R8 = H, F, Cl, Br, iodo, cyano, OR3,  
 NR3R4, SR3, SOR3, NR3COR4, alkyl, haloalkyl, heteroalkyl, etc.; R9 = H, F,  
 Cl, iodo, OR3, NR3R4, SR3, SOR3, SO2R3, alkyl, haloalkyl, heteroalkyl; R10  
 = NR1R2, (substituted) heterocyclyl; Y = O, S, NR3, NOR3, CR3R4], were  
 prepared. Thus, 6-amino-4-trifluoromethyl-2(1H)-quinolinone (preparation given)  
 was stirred with propionaldehyde and NaBH3CN in MeOH to give 70-95%  
 6-propylamino-4-trifluoromethyl-2(1H)-quinolinone. The latter showed  
 androgen receptor agonist activity with a potency of 27 nM. A drug composition  
 is given.

L4 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:545441 CAPLUS

DN 131:207755

TI Material and method for manufacture of porous membrane for integration of  
 large-scale integrated circuit

IN Aoi, Nobuo

PA Matsushita Electric Industrial Co., Ltd., Japan

SO Jpn. Kokai Tokyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE     |
|------|----------------|------|----------|-----------------|----------|
| PI   | JP 11233506    | A2   | 19990827 | JP 1998-29431   | 19980212 |
|      | JP 3571522     | B2   | 20040929 |                 |          |
|      | US 6194029     | B1   | 20010227 | US 1999-243491  | 19990203 |
|      | US 6319854     | B1   | 20011120 | US 2000-670698  | 20000928 |
| PRAI | JP 1998-29431  | A    | 19980212 |                 |          |
|      | US 1999-243491 | A1   | 19990203 |                 |          |

AB The material for manufacture of the porous membrane comprises a solution containing

(A) silanol condensate particles and (B) (a) an alkyl-, halo-, OH-, or polar group (composed of C and heteroatom)-containing organic acid, (b)  $\geq 2$  OH-containing organic acids, (c)  $\geq 1$  OH-containing organic acid and  $\geq 1$  polar group-containing organic acid, or (d) an organic acid anhydride. The porous

membrane is manufactured by applying the above material on a substrate, followed by heating it. The organic acid catalyzes condensation of silanol condensate particles to improve the mech. strength of the membrane without blocking of the pores.

L4 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:460864 CAPLUS

DN 131:199342

TI Nonordinary destruction of aliphatic aldehydes C2-C4 in solutions of giant palladium clusters Pd-561

AU Gladii, S. L.; Starchevskii, M. K.; Lastovyak, , Yu. V.; Pezderskii, Yu. A.; Vargaftik, M. N.; Moiseev, I. I.

CS Borislavsk. Naukovo-Dosl. Inst. "Sintez", Borislav, Ukraine

SO Dopovid Natsional'noi Akademii Nauk Ukrainskoi (1998), (1), 174-178  
CODEN: DNAUFL; ISSN: 1025-6415

PB Prezidiya Natsional'noi Akademii Nauk Ukrainskoi

DT Journal

LA Ukrain/Ukrain

AB Giant palladium cluster (Pd561) solns. are found to catalyze at 333 K and 0.1 MPa the oxidative destruction of aliphatic aldehydes C2-C4 yielding carbon dioxide and hydrocarbons. Acetaldehyde is converted to CO<sub>2</sub> and CH<sub>4</sub>. Destruction of propanal, butanal and i-butanal yields CO<sub>2</sub> and olefins - accordingly, ethylene and propene. A reaction mechanism suggested includes the cleavage of the  $\alpha$ -C-C bond of RCH<sub>2</sub>-C=O coordinated with a Pd-atom.

L4 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:352133 CAPLUS

DN 129:54296

TI Preparation of N-acyl nitrogen-containing cyclic ketones

IN Ishikawa, Masahiro; Koike, Hitoshi

PA Yuki Gosei Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|------|--|------|----------|-----------------|----------|
| PI   | JP 10147571  | A2   | 19980602 | JP 1996-323615  | 19961119 |
| PRAI | JP 1996-323615   |      | 19961119 |                 |          |
| OS   | CASREACT 129:54296; MARPAT 129:54296   |      |          |                 |          |
| AB   | RCOA (A = 4- or 3-piperidone residue, 3-pyrrolidone residue; R = alkyl, aryl) are prepared by reaction of PhCH <sub>2</sub> A (A = same as above) with RCO <sub>2</sub> COR (R = same as above) in the presence of H donors or H and Pd catalysts. N-benzyl-4-piperidone was treated with Ac <sub>2</sub> O in PhMe in the presence of |      |          |                 |          |

Pd/C under 5 kg/cm<sup>2</sup> H at 40° for 30 min to give 95% N-acetyl-4-piperidone.

L4 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1995:980696 CAPLUS  
DN 124:175094  
TI On the potential of zeolites to catalyze aromatic acylation with carboxylic acids  
AU Gunnewegh, E. A.; Downing, R. S.; Van Bekkum, H.  
CS Laboratory Organic Chemistry and Catalysis, Delft University Technology, Delft, 2628 BL, Neth.  
SO Studies in Surface Science and Catalysis (1995), 97(Zeolites: A Refined Tool for Designing Catalytic Sites), 447-52  
CODEN: SSCTDM; ISSN: 0167-2991  
PB Elsevier  
DT Journal  
LA English  
AB A symposium. The intramol. acylation of 4-phenylbutyric acid was investigated as a model reaction for Friedel-Crafts acylation catalyzed by zeolites in the liquid phase. This reaction is catalyzed by zeolite H-Beta in 4-chlorotoluene as solvent. The catalytic ability of H-Beta was demonstrated by the fact that at reflux temperature the total turnover number (TON) was found to be 35. However, the acylation of toluene or butylbenzene with carboxylic acids was slow; the unbalanced adsorption equilibrium between the two reactants on the H-Beta (Si/Al=12) may be a contributing factor in this case. The acylation of anisole by carboxylic acids or acid anhydrides however, was readily catalyzed by zeolite H-Beta.

L4 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1995:655207 CAPLUS  
DN 123:56502  
TI Method for manufacture of sucrose fatty acid esters with high degree of substitution  
IN Takamura, Yasuyuki; Murakami, Osamu  
PA Dai Ichi Kogyo Seiyaku Co Ltd, Japan  
SO Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE     |
|------|----------------|------|----------|-----------------|----------|
| PI   | JP 07101974    | A2   | 19950418 | JP 1993-250258  | 19931006 |
| PRAI | JP 1993-250258 |      | 19931006 |                 |          |

AB The title sucrose fatty acid esters are prepared by reaction of sucrose and/or a sucrose fatty acid ester with a fatty acid anhydride, wherein the reactants are dissolved in a solvent, made alkali, and reacted under an inert gas. The preferred solvent is a basic organic solvent which is used at  $\geq 1.0$  mol/1.0 mol fatty acid anhydride. The preferred reaction temperature is  $\geq 30$  to  $< 120^\circ$ . This process gives sucrose fatty acid esters with high degree of substitution and markedly good hue. A basic organic solvent makes the reaction system alkali, prevents coloration due to the thermal decomposition of sucrose fatty acid esters, dissolves sucrose and/or sucrose fatty acid esters to make the reaction system homogeneous and improve the reaction rate, serves as an esterification catalyst, and eliminates the need of using an alkali metal hydroxide or carbonate, which also results in preventing coloration. Carrying out the reaction under an inert gas prevents coloration due to the oxidation of sucrose. Thus, sucrose 0.1, Ac<sub>2</sub>O 1.6, and pyridine 4.8 mol were placed in a flask and N was bubbled at 10 mL/min into the mixture with stirring to make the O concentration 0.1 mg-O/L in the gas phase. The esterification was carried out, while bubbling N into the mixture at 5 mL/min and the reaction

mixture was distilled in vacuo at  $\leq 3$  mmHg and 60° to remove pyridine, Ac<sub>2</sub>O, and formed AcOH, and stirred with 200 g toluene and 300 g 0.5 weight% aqueous NaHCO<sub>3</sub> at 50° for 30 min followed by separating the toluene layer, washing it with H<sub>2</sub>O, and distilling toluene at 60° at  $\leq 3$  mmHg to give sucrose acetate with 7.98 degree of substitution and APHA (American Public Health Association) color scale 200.

L4 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1995:490129 CAPLUS

DN 123:9071

TI Manufacture of carbamate group-containing esters

IN Jaawarudo, Efu Gurahe; Arutaa, Rakobitsutsu

PA Dainippon Ink & Chemicals, Japan

SO Jpn. Kokai Tokyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|------|--|------|----------|-----------------|----------|
| PI   | JP 07017940  | A2   | 19950120 | JP 1993-164552  | 19930702 |
| PRAI | JP 1993-164552   |      | 19930702 |                 |          |
| OS   | CASREACT 123:9071; MARPAT 123:9071   |      |          |                 |          |
| AB   | Treating carbamate-containing alcs. HOXO <sub>2</sub> CNHR <sub>2</sub> (R <sub>2</sub> = H, C <sub>1-18</sub> organic group; X = C <sub>1-12</sub> difunctional group) with acid anhydrides (R <sub>1</sub> CO) <sub>2</sub> O (R <sub>1</sub> = same as R <sub>2</sub> ) in the presence of a base catalyst gives title esters R <sub>1</sub> CO <sub>2</sub> XO <sub>2</sub> CNHR <sub>2</sub> or treating HOXNHCO <sub>2</sub> R <sub>2</sub> with (R <sub>1</sub> CO) <sub>2</sub> O give R <sub>1</sub> CO <sub>2</sub> XNHCO <sub>2</sub> R <sub>2</sub> . Thus, treating hydroxyethylurethane with Ac <sub>2</sub> O in the presence of NaOMe at 80-85° gave .apprx.91.5% 2-carbamoyloxyethyl acetate. |      |          |                 |          |

L4 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1994:455895 CAPLUS

DN 121:55895

TI O-derivatized alginic acid antigens

IN Pier, Gerald

PA Brigham and Women's Hospital, Inc., USA

SO PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | WO 9408617  | A1   | 19940428 | WO 1993-US9909  | 19931015 |
|      | W: AU, CA, JP<br>RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE   |      |          |                 |          |
|      | AU 9454057  | A1   | 19940509 | AU 1994-54057   | 19931015 |
| PRAI | US 1992-962480  | A    | 19921016 |                 |          |
|      | WO 1993-US9909  | W    | 19931015 |                 |          |
| AB   | An O-derivatized alginic acid antigen capable of eliciting opsonizing antibodies in vivo is disclosed. The O-derivatized antigen shows enhanced antigenicity and immunogenicity relative to native, non-O-derivatized alginic acid antigens, particularly the mucoid exopolysaccharide antigen of <i>Pseudomonas aeruginosa</i> . Pharmaceutical compns. containing the O-derivatized antigen of the invention are also described. The invention also pertains to use of the compns. as vaccines, in immunodiagnostic assays, and in methods for producing monoclonal antibodies reactive against the antigen. Methods for forming O-derivatized alginic acid antigens of the invention are described. A non-O-derivatized starting material is reacted in a solvent with an alkyl anhydride derived from a short chain fatty acid (e.g. propionic, isobutyric, or butyric acid). |      |          |                 |          |

L4 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1993:602807 CAPLUS  
 DN 119:202807  
 TI Cobalt(II)-catalyzed reaction of aldehydes with **acetic anhydride** under an oxygen atmosphere: scope and mechanism  
 AU Bhatia, Beena; Punniyamurthy, T.; Iqbal, Javed  
 CS Dep. Chem., Indian Inst. Technol., Kanpur, 208016, India  
 SO Journal of Organic Chemistry (1993), 58(20), 5518-23  
 CODEN: JOCEAH; ISSN: 0022-3263  
 DT Journal  
 LA English  
 OS CASREACT 119:202807  
 AB The reaction of aldehydes with **acetic anhydride** in the presence of catalytic cobalt(II) chloride under an oxygen atmospheric at ambient temperature is dependent upon the reaction medium. Aliphatic aldehydes react in acetonitrile to give 1,2-diones whereas the aromatic aldehydes are acylated to yield the corresponding acylals. On the other hand, carboxylic acids are obtained from aliphatic and aromatic aldehydes by conducting the reaction in dichloromethane or benzene. Cobalt(II) chloride in acetonitrile catalyzes the conversion of aliphatic aldehydes to the corresponding anhydrides in the absence of **acetic anhydride** whereas aromatic aldehydes remain largely unaffected under these conditions. A preliminary mechanistic study in three different solvents (i.e. acetonitrile, dichloroethane, and DMF) has revealed that in acetonitrile and in the presence of **acetic anhydride**, aliphatic aldehydes behave differently than aromatic aldehydes. Some trapping expts. using Me acrylate and stilbene have been conducted to demonstrate the occurrence of an acyl cobalt and peroxyacetyl cobalt intermediate during these reactions.

L4 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1992:614970 CAPLUS  
 DN 117:214970  
 TI Method for purification of carboxylic acids and anhydrides  
 IN Zoeller, Joseph Robert; Moncier, Regina Michelle  
 PA Eastman Kodak Co., USA  
 SO PCT Int. Appl., 13 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

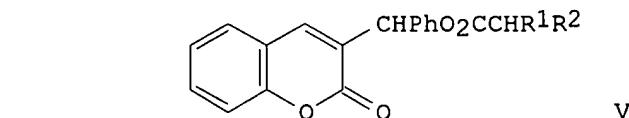
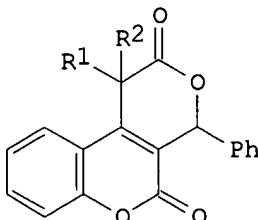
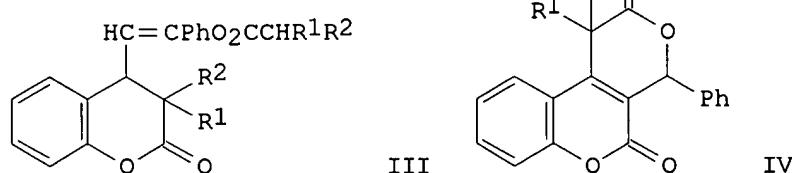
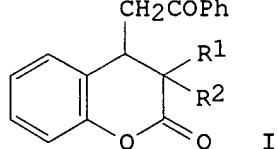
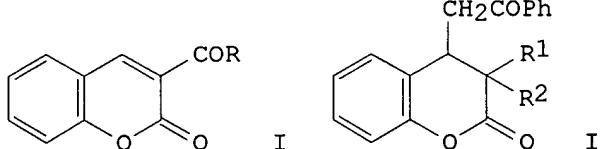
|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | WO 9212954  | A1   | 19920806 | WO 1992-US631   | 19920127 |
|      | W: CA, JP, KR<br>RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE |      |          |                 |          |
|      | US 5175363  | A    | 19921229 | US 1991-646029  | 19910128 |
|      | CA 2098293  | AA   | 19920729 | CA 1992-2098293 | 19920127 |
|      | EP 569492   | A1   | 19931118 | EP 1992-905057  | 19920127 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE               |      |          |                 |          |
|      | JP 06505257   | T2   | 19940616 | JP 1992-505713  | 19920127 |
| PRAI | US 1991-646029  | A    | 19910128 |                 |          |
|      | WO 1992-US631   | W    | 19920127 |                 |          |

AB A method for reducing the amount of olefinic impurity in the title C2-8 carboxylic acids and C4-16 anhydrides comprises contacting them with a strong acidic resin. A sample of AcOH contaminated with 221 ppm 1-octene was added to Amberlyst-15, the mixture refluxed for 3 h to give AcOH containing only 15 ppm 1-octene.

L4 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1992:135528 CAPLUS

DN 116:135528  
 TI Performance-oriented packaging standards; changes to classification, hazard communication, packaging and handling requirements based on UN standards and agency initiative  
 CS United States Dept. of Transportation, Washington, DC, 20590-0001, USA  
 SO Federal Register (1990), 55(246), 52402-729, 21 Dec 1990  
 CODEN: FEREAC; ISSN: 0097-6326  
 DT Journal  
 LA English  
 AB The hazardous materials regulations under the Federal Hazardous Materials Transportation Act are revised based on the United Nations recommendations on the transport of dangerous goods. The regulations cover the classification of materials, packaging requirements, and package marking, labeling, and shipping documentation, as well as transportation modes and handling, and incident reporting. Performance-oriented stds. are adopted for packaging for bulk and nonbulk transportation, and SI units of measurement generally replace US customary units. Hazardous material descriptions and proper shipping names are tabulated together with hazard class, identification nos., packing group, label required, special provisions, packaging authorizations, quantity limitations, and vessel stowage requirements.

L4 ANSWER 17 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1988:406370 CAPLUS  
 DN 109:6370  
 TI Thermal transformations of some 3-acyl-2-oxo-2H-1-benzopyrans with acid anhydrides  
 AU Bodzhilova, A.; Ivanov, Kh.  
 CS Fac. Chem., Univ. Sofia, Sofia, 1126, Bulg.  
 SO Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1987), 26B(8), 731-5  
 CODEN: IJSBDB; ISSN: 0376-4699  
 DT Journal  
 LA English  
 OS CASREACT 109:6370  
 GI



AB The reaction of 3-benzoyl- and 3-acetyl-2-oxo-2H-1 benzopyrans I (R = Ph, Me) with acid anhydrides in the presence of AcONa or Et3N was studied. Thus, with propionic, butyric and **isobutyric acid** anhydrides, I (R = Ph) affords the rearrangement products II and III (R1 = H, R2 = Me, Et; R1 = R2 = Me), dilactones IV and benzyl ester V.

L4 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1977:71270 CAPLUS  
DN 86:71270  
TI Kinetics and mechanism of the reaction of aliphatic nitriles with carboxylic acids  
AU Zil'berman, E. N.; Navolokina, R. A.; Minchuk, F. F.; Danov, S. M.; Gromova, G. V.  
CS Gor'k. Politekh. Inst. im. Zhdanova, Dzerzhinsk, USSR  
SO Izvestiya Vysshikh Uchebnykh Zavedenii, Khimiya i Khimicheskaya Tekhnologiya (1976), 19(9), 1395-8  
CODEN: IVUKAR; ISSN: 0579-2991  
DT Journal  
LA Russian  
AB Rate consts. and activation parameters were determined for the reaction of RCN with RCO2H (R = Me, Et, Pr, Me2CH) to give RCONH2 and (RCO)2O and for the further reaction of these products to give (RCO)2NH and RCO2H. A 4-center cyclic transition state was suggested for the 2nd step.

L4 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1952:57248 CAPLUS  
DN 46:57248  
OREF 46:9565f-g  
TI Function of pyridine in the carboxylic acid-thionyl chloride system  
AU Gerrard, W.; Thrush, A. M.  
CS Northern Polytech., London  
SO Journal of the Chemical Society, Abstracts (1952) 741-2  
CODEN: JCSAAZ; ISSN: 0590-9791  
DT Journal  
LA Unavailable  
AB The addition of 0.5 mol. SOCl2 to 1 mol. AcOH and 1 mol. C5H5N in ether at -10° gives an immediate precipitate which appears to be an equimol. mixture of C5H5N.HCl and C5H5N.HOSOCl; the ether yields 97% Ac2O. In the same way (iso-PrCO)2O, (iso-BuCO)2O, and (C6H13CO)2O were obtained in 98, 99, and 97% yields. A postulated mechanism involves the 4-center broadside approach of the reacting mols.

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